State of New Hampshire Department of Environmental Services Air Resources Division



Temporary Permit

Permit No: TP-TBD

Date Issued: TBD

This certifies that:

Novel Iron Works, Inc. 250 Ocean Road Greenland, NH 03840

has been granted a Temporary Permit for:

Structural Metal Coating Process

at the following facility and location:

Novel Iron Works, Inc. 250 Ocean Road Greenland, NH 03840

Facility ID Number: 3301590778

Application Number: 18-0107, received May 25, 2018 – Temporary Permit

which includes devices that emit air pollutants into the ambient air as set forth in the permit application referenced above which was filed with the New Hampshire Department of Environmental Services, Air Resources Division (department) in accordance with RSA 125-C of the New Hampshire Laws. Request for permit renewal must be received by the department at least 90 days prior to expiration of this permit and must be accompanied by the appropriate permit application forms.

This permit is valid upon issuance and expires on **TBD**.

Director
Air Resources Division

NOVELLION WOLK

Abbreviations and Acronyms

AAL Ambient Air Limit
acf actual cubic foot
ags above ground surface

ASTM American Society of Testing and Materials

Btu British thermal units

CASRN Chemical Abstracts Service Registry Number

cfm cubic feet per minute

CFR Code of Federal Regulations

CO Carbon Monoxide

Env-A New Hampshire Code of Administrative Rules – Air Related Rules

ft foot or feet ft³ cubic feet gal gallon

HAP Hazardous Air Pollutant as defined in Section 112 of the 1990 Clean Air Act Amendments

hp horsepower

hr hour kW kilowatt lb pound

LPG Liquefied Petroleum Gas

MW megawatt

NAAQS National Ambient Air Quality Standard

NESHAP National Emission Standard for Hazardous Air Pollutants

NG Natural Gas

NHDES New Hampshire Department of Environmental Services (the department)

NSPS New Source Performance Standard

NOx Oxides of Nitrogen

PM10 Particulate Matter < 10 microns

ppm parts per million

psi pounds per square inch

RACT Reasonably Available Control Technology RICE Reciprocating Internal Combustion Engine

RTAP Regulated Toxic Air Pollutant RSA Revised Statutes Annotated

SDS Safety Data Sheet scf standard cubic foot SO₂ Sulfur dioxide

TSP Total Suspended Particulate

tpy tons per consecutive 12-month period
ULSD Ultra Low Sulfur Diesel (15 ppm by weight)
USEPA United States Environmental Protection Agency

VOC Volatile Organic Compound

I. Facility Description

Novel Iron Works, Inc. (the Facility) is principally engaged in fabrication and erection of structural steel and miscellaneous metal parts. Operations at the facility include receiving steel in a variety of lengths, sizes, and shapes, cutting, welding, and bonding them as required by specifications into structural components. For approximately 40 percent to 60 percent of jobs, specifications require the fabricated structural components be painted for corrosion protection and exposure to extreme weather conditions. The Facility has requested enforceable limitations on the potential to emit VOCs and HAPs to below the major source threshold of 50 tpy for VOC, 10 tpy for any individual HAP and 25 tpy for combined HAP and therefore requires a permit.

II. Emission Unit Identification

This permit covers the device identified in Table 1.

	Table 1 – Ei	mission Unit	Identification
Emission Unit ID			Maximum Capacity/Production Capacity
EU01	EU01 Spray Paint Area – consisting of three painting bays for spray coating of structural components		The spray paint area is equipped with three spray guns, each with a maximum delivery rate of 0.25 gal/min

III. Stack Criteria

The following device at the Facility shall have an exhaust stack that discharges vertically, without obstruction, and meets the criteria in Table 2.

Table 2 – Stack Criteria							
Stack Number	Stack Number Emission Unit or Pollution Control Equipment ID Minimum Height (feet above ground surface)						
Building Exhaust #1	EU01	30	17.1				
Building Exhaust #2	EU01	30	17.1				
Building Exhaust #3	EU01	30	17.1				
Building Exhaust #4	EU01	30	17.1				

IV. Operating and Emission Limitations

The owner or operator shall be subject to the operating and emission limitations identified in Table 3.

	Table 3 – Operating and Emission Limitations					
Item #	Requirement	Applicable Emission Unit	Regulatory Basis			
1	 Facility-wide Emission Limitations² a.) Emissions of VOC shall be limited to less than 50 tpy; and b.) Emissions of HAPs shall be limited to less than 10 tpy for any individual HAP and less than 25 tpy for all HAP combined. 	Facility wide	Env-A 604.02(a)(1)			

There is no impediment to vertical flow and the exhaust stack extends at least 2 feet higher than any roofline within 10 feet of the exhaust stack exit, measured horizontally.

² The Facility has the potential to emit VOCs and HAPs above the major source thresholds of 50 tpy for VOC, 10 tpy for a single HAP and 25 tpy for combined HAP. The emission limitations in Table 3, Item 1 are less than these thresholds and establishes the Facility as a synthetic minor source of air pollution for VOCs and HAPs.

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Item #	Requirement	Applicable Emission Unit	Regulatory Basis
2.	24-hour and Annual Ambient Air Limit The emissions of any RTAP shall not cause an exceedance of its associated 24-hour and annual De minimis level or 24-hour and annual AAL as set forth in Env-A 1450.01, Table of All Regulated Toxic Air Pollutants.	Facility wide	Env-A 1400 State-only enforceable limitation
3.	Revision of the List of RTAPs In accordance with RSA 125-I:5 IV, if the department revises the list of RTAPs or their respective AALs or classifications under RSA 125-I:4, II and III, and as a result of such revision the owner or operator is required to obtain or modify the permit under the provisions of RSA 125-I or RSA 125-C, the owner or operator shall have 90 days following publication of notice of such final revision in the New Hampshire Rulemaking Register to file a complete application for such permit or permit modification.	Facility wide	RSA 125-I:5, IV State-only enforceable limitation
4.	Emissions of Methylene bisphenyl diisocyanate (MDI; CASRN 101-68-8) shall be limited to maintain compliance with the associated 24-hr and annual AALs as set forth in Env-A 1450.01, <i>Table of All Regulated Toxic Air Pollutants</i> as follows: a.) Coating TN010: 1.) 16.38 gallons per day; and 2.) 901 gallons per calendar year; and b.) Coating TN011: 1.) 37.5 gallons per day; and 2.) 2,063 gallons per year.	EU01	Env-A 1400 State-only enforceable limitation
5.	Miscellaneous Metal and Plastic Parts and Products Coating - Application Methods The owner or operator of a miscellaneous metal and plastic parts and products coating operations shall control VOC emissions by using one or more of the following coating application methods: a.) High volume-low pressure (HVLP) spray; b.) Electrostatic spray; c.) Zinc-arc spray; d.) Air-assisted airless spray; e.) A flow controlling technique; f.) Dip coat, including electrodeposition; or g.) Any other method with transfer efficiency equivalent to or better than that achieved by HVLP spraying.	EU01	Env-A 1212.02
6,	 Miscellaneous Metal and Plastic Parts and Products Coating – Work Practice Standards The owner or operator shall control VOC emissions from: a.) VOC-containing coatings, thinners, and coatings –related waste materials by using the following work practices: 3.) Storing all VOC-containing coatings, thinners and coatings-related waste materials in closed containers; 4.) Keeping mixing and storage containers closed at all times except when depositing or removing VOC-containing coatings, thinners, and coating-related waste materials; 5.) Minimizing spills of VOC-containing coatings, thinners, and coating-related waste materials; and 6.) Conveying VOC-containing coatings, thinners, and coating-related waste materials from one location to another in closed containers or pipes; 	EU01	Env-A 1212.03

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	Table 3 – O	nission Limitation	S		
Item #	Requir		Applicable Emission Unit	Regulatory Basis	
6. cont.	 b.) Cleaning materials by using the follow 1.) Storing VOC-containing cleaning containers; 2.) Keeping mixing and storage containers depositing or removing VOC-containers 3.) Minimizing spills of VOC-container 4.) Conveying VOC-containing materials closed containers or pipes; and 5.) Minimizing VOC emissions from conveying equipment by ensuring 6.) Cleaning solvents are not atomized 7.) All spent solvent is captured in classical containing was a solvent of the context o	materials and used ainers closed at all ti- taining materials; ning materials; rials from one location the cleaning of stores; that:	mes except when	EU01	Env-A 1212.03
7.	Miscellaneous Metal Parts and Products (The owner or operator shall control VOC e a.) Using low-VOC content coatings as a compounds as specified in Table 1212	emissions: pplied ³ , excluding w		EU01	Env-A 1212.04(a)
	Coating Category	Kg VOC/I coating	Lb VOC/gal coating		
	General, One-component	0.34	2.8		
	General, Multi-component	0.34	2.8		
	Extreme performance	0.42	3.5		
	High performance architectural	0.74	6.2		
	Pretreatment coatings	0.42	3.5		
	Prefab. Architectural multi-component	0.42	3.5		
	Prefab. Architectural one-component	0.42	3.5		
	b.) Using a combination of low-VOC concontrols to meet the limits calculated properties are specified in Table 1212-2	oursuant to Env-A 1	205.01 and Item 8.		Env-A 1212.04(c)
	Coating Category	Kg VOC/I solids	Lb VOC/gal solids		
	General, One-component	0.54	4.52		
	General, Multi-component	0.54	4.52		
	Extreme performance	0.80	6.67		
	High performance architectural	4.56	38.0		
	Pretreatment coatings	0.80	6.67		
	Prefab. Architectural multi-component	0.80	6.67		
	Prefab. Architectural one-component	0.80	6.67		

³ "As applied" means the VOC and solids content, including any diluent solvents, of the material that is actually used for coating the substrate.

	Table 3 – Operating and Emission Limitations					
Item #	Requirement	Applicable Emission Unit	Regulatory Basis			
8.		EU01	Env-A 1205.01(c) & Env-A 1205.02(a)			
9.	Visible Emission Standard The average opacity shall not exceed 20 percent for any continuous 6-minute period. ⁴	EU01	Env-A 2102.01			

V. Monitoring and Testing Requirements

The owner or operator is subject to the monitoring and testing requirements as contained in Table 4.

	Table 4 – Monitoring and Testing Requirements					
Item #	Method of Compliance	Frequency	Applicable Emission Unit	Regulatory Basis		
1.	When conditions warrant, the department may require the owner or operator to conduct stack testing in accordance with USEPA or other department approved methods.	Upon request by the department	Facility wide	RSA 125-C:6 XI		

VI. Recordkeeping Requirements

The owner or operator shall be subject to the recordkeeping requirements identified in Table 5.

	Table 5 – Recordkeeping Requirements					
Item #	Requirement	Duration/ Frequency	Applicable Emission Unit	Regulatory Basis		
1.	Record Retention and Availability Keep the required records on file. These records shall be available for review by the department upon request.	Retain for a minimum of 5 years	Facility wide	Env-A 902.01		

Compliance with visible emission limitations shall be determined, upon request by the department, using 40 CFR 60, Appendix A, Method 9, or other department approved method.

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Item #	Requirement	Duration/ Frequency	Applicable Emission Unit	Regulatory Basis
2.	Recordkeeping Requirements for Process Operations Maintain the following records: a.) Total quantity of coating, thinning and cleaning material containing VOCs, HAPs and/or RTAPs; and b.) SDS or other documentation containing the concentration of total VOCs, each HAP, and each RTAP in each coating, thinning and cleaning material used.	Monthly	EU01	Env-A 903.02 & Env-A 902.01
3.	 VOC Emission Statements Recordkeeping Requirements If the actual annual VOC emissions from all permitted devices located at the Facility are greater than or equal to 10 tpy, then record the following information: a.) Identification of each VOC-emitting process or device; b.) The operating schedule during the high ozone season (June 1 through August 31) for each VOC-emitting process or device identified in a.) above, including: Typical hours of operation per day; and Typical days of operation per calendar month. c.) The following VOC emission data from all VOC-emitting processes or devices identified in a.) above, including: Actual monthly VOC emissions; Typical high ozone season day VOC emissions, in pounds per day; and 3.) The emission factors and the origin of the emission factors used to calculate the VOC emissions. 	Maintain data for annual report	EU01	Env-A 904.02
4.	 VOC Recordkeeping for Surface Coating and Printing Operations Record the following information for each coating operation: a.) Coating formulation and analytical data, as follows: 1.) Supplier; 2.) Name and color; 3.) Type; 4.) Identification number; 5.) Density described as lbs/gal; 6.) Total volatiles content described as weight percent; 7.) Water content described as weight percent; 8.) Exempt solvent content described as weight percent; 9.) VOC content described as weight percent; 10.) Solids content described as volume percent; 11.) Diluent name and identification number; 12.) Diluent solvent density described as lbs/gal; 13.) Diluent VOC content described as weight percent; 14.) Diluent exempt solvent content described as weight percent; 15.) Volume of diluent VOC described as gal; and 16.) Diluent/solvent ratio described as gal diluent solvent/gal coating; and b.) The number of gallons of each coating, including solvents and diluents, utilized during a typical high ozone season day; 	Maintain current data	EU01	Env-A 904.03

Item #	Requirement	Duration/ Frequency	Applicable Emission Unit	Regulatory Basis
4. cont.	 c.) Process information for a typical high ozone season day including: Method of application; Number of coats for coating operations; Drying method, if applicable; and Substrate type and form. d.) Maintain records of calculations of: 	Maintain current data	EU01	Env-A 904.03
	 VOC content of each coating as applied³; or Daily VOC bubble averaging calculations using the formula in Table 3, Item 8 if applicable. 			Env 11900
5.	Regulated Toxic Air Pollutants Maintain records documenting compliance with Env-A 1400. Compliance was demonstrated at the time of permit issuance as described in the department's Application Review Summary for application #18-0107. The source must update the compliance demonstration using one of the methods provided in Env-A 1405 if: a.) There is a revision to the list of RTAPs lowering the AAL or Deminimis level for any RTAP emitted from the Facility; b.) The amount of any RTAP emitted is greater than the amount that was evaluated in the Application Review Summary; c.) An RTAP that was not evaluated in the Application Review Summary will be emitted; or d.) Stack conditions change.	Update prior to process changes and within 90 days of each revision of Env-A 1400	Facility wide	Env-A 902.01 State-only requirement
6.	 Additional Recordkeeping Requirements: Emission Limitations a.) Maintain a 12-month running total of emissions of VOCs and HAPs calculated pursuant to Env-A 705.02 for the purpose of demonstrating that the total emissions of these pollutants are below the thresholds specified in Table 3, Item 1; and 	Monthly	EU01	Env-A 906 & Env-A 604.02(a)(3)
	b.) Maintain daily records of use of coatings containing MDI (CASRN 101-68-8) for the purpose of demonstrating that total emissions are below the threshold specified in Table 3, Item 4.	Daily		

VII. Reporting Requirements

- A. Pursuant to Env-C 203.02(b), *Date of Issuance of Filing*, written documents shall be deemed to have been filed with or received by the department on the actual date of receipt by the department, as evidenced by a date stamp placed on the document by the department in the normal course of business.
- B. All emissions data submitted to the department shall be available to the public. Claims of confidentiality for any other information required to be submitted to the department pursuant to this permit shall be made at the time of submission in accordance with Env-A 103, *Claims of Confidentiality*.

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C. The owner or operator shall be subject to the reporting requirements identified in Table 6.

	Table 6 – Reporting Requir	ements		
Item #	Requirement	Frequency	Applicable Emission Unit	Regulatory Basis
1.	 General Reporting Requirements a.) Each report shall be separately and clearly labeled with: The name, mailing address and physical address of the source covered by the report; The operating period covered by the report; The permit number and condition or item number that requires the report submittal; The type of report, using the name of the report as specified in the reporting condition in the permit, that is being submitted; and The date the report was prepared; An owner or operator who submits a report that is a revision to a previously-submitted report shall clearly identify the previously-submitted report with the information specified in a.) above, and indicate which portions of the report have been revised; The owner or operator may submit more than one report with a single cover, provided the owner or operator clearly identifies each report being submitted using the information required in a.) 	For each report submitted to the department	Facility wide	Env-A 907.01
	and b.) above, if applicable, for each report; and d.) The owner or operator shall submit reports as paper documents or by electronic means.			
2.	Annual Emissions Report Submit an annual emissions report which shall include the following information: a.) Actual calendar year emissions of: 1.) Total VOCs; 2.) Each RTAP and each HAP reported by CAS number; b.) The methods used in calculating such emissions in accordance with Env-A 705.02, Determination of Actual Emissions for Use in Calculating Emission-Based Fee; c.) The emission factors and the origin of the emission factors; and d.) All information recorded in accordance with Table 5, Item 2.a.) compiled on a monthly basis.	Annually (received by the department no later than April 15 th of the following year)	EU01	Env-A 907.02
3.	<u>VOC Reporting Requirements</u> If the actual VOC emissions from all permitted devices located at the Facility are greater than or equal to 10 tpy, then include all the data recorded in Table 5, Item 3.	Annually (received by the department no later than April 15 th of the following year)	EU01	Env-A 908
4.	Permit Deviation Reporting Requirements Report permit deviations that cause excess emissions in accordance with Condition VIII.B.	Within 24 hours of discovery of excess emission	EU01	Env-A 911.04(a)
5.	Annual Emission Fee Pay annual emission fee in accordance with Condition XI.	Annually (received by the department no later than May 15 th of the following year)	EU01	Env-A 705

VIII. Permit Deviation Reporting Requirements

- A. Env-A 101, Definitions:
 - 1. A *permit deviation* is any occurrence that results in an excursion from any emission limitation, operating condition, or work practice standard as specified in either a Title V permit, state permit to operate, temporary permit or general state permit issued by the department.
 - 2. An excess emission is an air emission rate that exceeds any applicable emission limitation.
 - 3. An *emission limitation* means "emission limitation" as defined in section 302(k) of the Act, namely "a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction and any design, equipment work practice or operational standard promulgated under this Act." This term includes "emission standard".
- B. Env-A 911.04, *Reporting Requirements*: In the event of a permit deviation that causes excess emissions:
- 1. Notify the department of the permit deviation and excess emissions by telephone (603-271-1370), fax (603-271-7053) or e-mail (pdeviations@des.nh.gov), within 24 hours of discovery of the permit deviation, unless it is a Saturday, Sunday, or state legal holiday, in which event, the department shall be notified on the next day which is not a Saturday, Sunday, or state legal holiday; and
- 2. Submit a written report of the deviation on paper or by electronic means to the department within 10 days of discovery of the permit deviation reported above. The report shall include all of the following information:
 - a. Facility name;
 - b. Facility address;
 - c. Name of the responsible official;
 - d. Facility telephone number;
 - e. A description of the permit deviation, including the applicable permit number and permit condition(s);
 - f. The probable cause of the permit deviation;
 - g. The date and time of the discovery of the permit deviation;
 - h. The actual date(s) and time(s) of the permit deviation;
 - i. The duration of the permit deviation, including the date and time that the device, process or air pollution control equipment returned to operation in compliance with an enforceable emission limitation or operating condition;
 - j. The specific device, process or air pollution control equipment that contributed to the permit deviation;
 - k. Any corrective measures taken to address the permit deviation;
 - 1. Preventative measures taken to prevent future permit deviations;
 - m. The type and amount of any excess emissions that occurred as a result of the permit deviation if applicable; and
 - n. If applicable, the calculation or estimation used to quantify the excess emissions.

IX. Permit Amendments

- A. Env-A 612.01, Administrative Permit Amendments:
 - 1. An administrative permit amendment includes the following:
 - a. Corrects typographical errors;
 - b. Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - c. Requires more frequent monitoring or reporting; or
 - d. Allows for a change in ownership or operational control of a source provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the department.
 - 2. The owner or operator may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request with the department.
- B. Env-A 612.03, Minor Permit Amendments: Temporary Permits and State Permits to Operate:
 - 1. The owner or operator shall file with the department a request for a minor permit amendment for any proposed change to any of the conditions contained in this Permit which does not qualify as either an administrative or significant amendment.
 - 2. The request for a minor permit amendment shall be in the form of a letter to the department and shall include the following:
 - a. A description of the proposed change, and
 - b. A description of any new applicable requirements that will apply if the change occurs.
 - 3. The owner or operator may implement the proposed change immediately upon filing a request for the minor permit amendment, but shall be subject to enforcement if the department later determines that the change violated any applicable state or federal requirement.
- C. Env-A 612.04, Significant Permit Amendments: Temporary Permits and State Permits to Operate:
 - 1. The owner or operator shall submit a written request for a permit amendment to the department prior to the implementation of any proposed change which meets one of the following:
 - a. Any proposed change that results in the following:
 - i. Any increase in allowable hourly or annual emissions of NOx, SO₂, VOCs, HAPs, or PM10; or
 - ii. Any increase in potential emission equal to or greater than 5 lb/hr of CO; or
 - b. Any proposed change to operating or emission limitations.
 - 2. A request for a significant permit amendment shall include the following:
 - a. A complete application form, as described in Env-A 1703 through Env-A 1708, as applicable;
 - b. A description of:
 - i. The proposed change;
 - ii. The emissions resulting from the change;

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- iii. Any new applicable requirements that will apply if the change occurs; and
- c. Where air pollution dispersion modeling is required for a device pursuant to Env-A 606.02, the information required pursuant to Env-A 606.04.
- d. A description of the monitoring the source intends to conduct to demonstrate compliance with all applicable state and federal statutes, rules and permits, as specified in Env-A 810.02.
- 3. The owner or operator shall not implement the proposed change until the department issues the amended permit.

X. Inspection and Entry

Department personnel shall be granted access to the facility covered by this permit, in accordance with RSA 125–C:6, VII for the purposes of: inspecting the proposed or permitted site; investigating a complaint; and assuring compliance with any applicable requirement found in the New Hampshire Rules Governing the Control of Air Pollution and/or conditions of any permit issued pursuant to Chapter Env-A 600.

XI. Baseline and Emission-Based Fee Requirements

- A. Env-A 705.02, *Emission-based Fee*: The owner or operator shall pay to the department each year an annual emission fee consisting of a baseline emission fee and an emission-based fee.
- B. Env-A 705.03, *Determination of Actual Emissions for use in Calculating of Emission-based Fee*: The owner or operator shall determine the total actual annual emissions from the emission units listed in Table 1 for each calendar year in accordance with the methods specified in Env-A 705.03.
- C. Env-A 705.04, *Calculation of Emission-based Fee*: The owner or operator shall calculate the annual emission-based fee for each calendar year in accordance with the procedures specified in Env-A 705.04 and the following equation:

$$FEE = E * DPT$$

Where:

FEE = The annual emission-based fee for each calendar year as specified in Env-A 705;

E = Total actual emissions as determined pursuant to Condition XI.B; and

DPT = The annual fee, in dollars per ton of emissions, determined by the department in accordance with Env-A 705.04⁵

- D. Env-A 705.06, *Payment of Annual Baseline Emission Fee*: In addition to the annual emission-based fee, the owner or operator shall pay to the department each year an annual baseline emission fee pursuant to the following:
 - 1. Env-A 705.06(a), \$750
 - 2. Env-A 705.06(c), if the owner or operator is not required to pay an emission-based fee for any calendar year because the Facility had zero emissions, the annual baseline emission fee shall be \$500 in lieu of the fee stated in Condition XI.D.1.
- E. Env-A 705.02, *Annual Emission Fee*: The annual emission fee shall be the sum of the emission-based fee calculated pursuant to XI.C and the baseline fee stated in XI.D. The owner or operator shall submit, to the department, payment of the annual emission fee so that the department receives it on or before May 15th for emissions during the previous calendar year. For example, the fee for calendar year 2018 shall be received on or before May 15, 2019.

For additional information on emission-based fee, visit the DES website at http://des.nh.gov/organization/divisions/air/pehb/apps/fees.htm